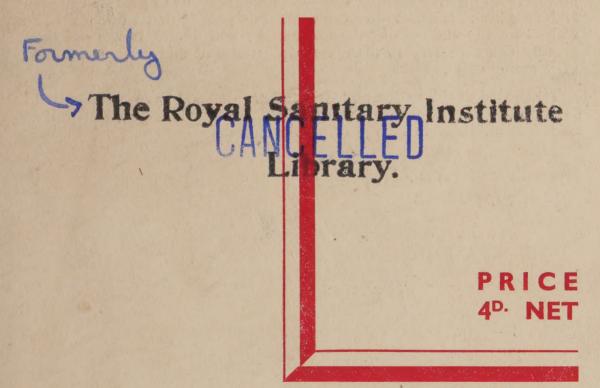




## THE FEEDING OF CHILDREN FROM ONE TO FIVE YEARS



ISSUED BY
THE MINISTRY OF HEALTH

PUBLISHED BY
HIS MAJESTY'S STATIONERY OFFICE

#### FOREWORD

This memorandum has been prepared in the light of the most recent developments in the science of nutrition and the dietary requirements of the pre-school child; it states the kinds and amounts of food necessary to provide essentials, while taking account of present rations and supplies; it gives directions for the preparation of foods and recipes for the making of palatable meals; and finally, it sets out the precautions necessary to make certain articles of diet suitable for the very young child.

The Board of Education and the Ministry of Food have collaborated in the compilation of this Memorandum, which, it is hoped, will prove useful to all those in charge of young children.

MINISTRY OF HEALTH, March, 1942.

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MINISTRY OF HEALTH

# THE FEEDING of CHILDREN FROM ONE TO FIVE YEARS

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## THE FEEDING OF CHILDREN FROM ONE TO FIVE YEARS

This memorandum deals with the feeding of children from one to five years of age, the period of transition from infant to child when physical and intellectual development is rapid, habits are formed and children are particularly susceptible to infectious and other diseases.

For growth the diet should be rich in constructive nutrients, while for physical activity it should be rich in energy-giving foods; the liability to disease necessitates a diet rich in protective nutrients.

Care should be taken to guard against the formation of food aversions or prejudices which children generally acquire by copying their elders. Experience has shown that practically all food aversions, except idiosyncrasies, can be abolished by example and by tactful and persistent persuasion. Genuine idiosyncrasies with clinical symptoms, of which perhaps the commonest are those against shellfish and strawberries do, however, exist. This is a different matter from a mere aversion to particular foods which has no physiological basis. Those in charge of the feeding of children should distinguish between the two and should be specially careful not to allow their own likes and dislikes to influence the habits of the children under their care.

Everyone concerned with the education of young children has realised the very great importance of using meals as an opportunity for training in self-reliance, good manners and correct behaviour. Every meal should be a social occasion at which the children should learn to behave properly and to be considerate and unselfish.

#### Nutritional Requirements.

Children from 1-3 years need about 840-1,000 calories daily and children up to 5 years about 1,300 calories. Protein requirements are about 35-45 grams for children aged 1-3 years, and 45-55 grams for children from 3-5 years. The calcium needed for children up to 5 years is about 1 gram a day and iron 5-8 mg. according to age. Vitamin requirements would be met by intakes of about 3,000 international units of vitamin A, 200-250 of vitamin B.1, 600 I.U. of vitamin C. and 300-500 I.U. of vitamin D.

The tables below show how the requirements of children up to 5 years may be met from rationed and certain unrationed foods. They are not suggested as constituting a specimen diet, as there are many other foods available which it would be desirable to include to increase variety and flavour. For instance, the list does not contain any fruit, or such things as barley, rice and other cereals and cereal products. It might also be found possible to obtain two or more eggs weekly, thus enriching the diet in constructive and protective nutrients. Children sometimes dislike vegetables, usually because they are badly cooked. In view of their great nutritional value special pains should be taken to make sure that vegetables are cooked and served in easily digested and attractive forms. The menus in Appendix I, if prepared according to the instructions given, will supply a sufficiency of the essential nutrients.

or and no		Calor-	Pro-	Cal-	Iron.	Vitamins.		
Food.	NA S	les.	tein. gm.	gm.	mgm.	A I.U.	B.1 I.U.	C I.U.
Milk 7 pints Cheese 3 oz Bacon 4 oz Meat 8 oz Sugar 8 oz Jam, etc. 4 oz. Butter 2 oz Margarine 4 oz. Cooking fat 2 oz.		2632 350 437 698 928 324 438 896 528	134·4 24·0 12·2 31·0 	4.9 .9 	4.9 1.1 3.4 6.0 — 2.8 .1	4620 1035 — — — 2240 1800	596 454 91 — 8 —	1120
Total per week Total per day	Det la	7231 1033	202.8	5.9	18.3	9695 1385	1149 164	1120 160

Foods unrationed, or sold on points, per week, in amounts suitable for a child up to 5 years of age.

Food.	Calor- ies.	Protein.	Calcium.	Iron. gm.	A. I.U.	B.1. I.U.	C. I.U.
Potatoes 28 oz Eggs, I Oatmeal 2 oz Green veg. 16 oz Root veg. 8 oz Fish, fresh 4 oz Fish, canned 1 oz Liver 2 oz Cod liver oil 21 c.c Wheatmeal bread 32 oz.	488 71 236 147 70 88 56 72 182 2070	11.4 5.5 6.8 8.0 2.2 16.0 6.1 11.1	.1  .5 .1  .1	3.6 1.1 2.3 5.6 1.0 .4 .3 3.3	939 2837 38 44 6134 14648	318 28 85 182 48 28 6 40 700	1176 
Total per week Total per day	3480 497	130.7	1.2	36.8 5.2	24840 3549	1435 205	575 <sup>2</sup> 822
Total per head per day of rationed and unrationed foods.	1530	47.7	1.0	7.8	4934	369	982

The quantities of foods given in the table are gross, and the amounts of nutrients are only approximate.

The great falling off in supplies of fresh fruit, particularly of oranges, has led to the fear that the diets of young children may be deficient in vitamin C. The accompanying tables show that without any fruit at all, the diets suggested contain an amount of vitamin C nearly 65 per cent. above requirements. The main sources are potatoes and vegetables, and it follows that if sufficient amounts of these foods are consumed there can be no fear of scurvy, provided they are prepared and cooked in the proper way (see Appendix III). When fresh fruit becomes available younger children should naturally be given a preference.

The amount of vitamin D in many foods is not yet known; the best sources are oils and fats, particularly fish liver oils, butter, modern margarine and eggs. It is also formed in the body when the skin is exposed to sunlight. A small dose daily, especially in winter, of cod, halibut or other fish liver oil or emulsion, according to the make and strength will ensure the provision of sufficient vitamin D to meet requirements especially of bone and tooth formations. A national brand of cod liver oil is now supplied to children under five. A concentrated source of vitamin C in the form of fruit juices is available under the same arrangement for children under two.

Children over a year old may be assumed to be accustomed to potatoes mashed in gravy or milk, and to mashed vegetables, milk puddings and porridge. From about 15 months onwards they can be given small helpings of steamed puddings and gradually accustomed to unmashed vegetables, and later on, to salads. Fried foods and other fatty or spiced dishes are best avoided, though children over three years may be given fried bread, and children under three years bread dipped in bacon fat. Simple and well-balanced meals given at regular times and in a quiet atmosphere are best for the proper nutrition of

children.

#### Dietary rules and allowances for children aged 1 to 5 years.

Allow I pint of milk or more per head daily. If pasteurised milk cannot be obtained, milk should be brought to the boil before use. One-third should be taken at breakfast; one-third at tea and the remainder can be used to make soups, sauces, puddings and custards and for a morning drink. Milk is specially rich in calcium and other salts which are necessary for the proper formation of bones and teeth. If liquid milk should become short, dried milk, if available, should be used for cooking. Full use should be made of the National Milk Scheme.

Encourage children to drink at least ½-pint of water daily.

All bread should be national wheatmeal and the flour used in cooking should be national wheatmeal. National wheatmeal bread makes excellent toast and rusks. Toast and rusks should be served daily to promote teeth eruption, mastication and salivation. Children should

be taught to chew thoroughly.

Salads, consisting of watercress, tomatoes, lettuce, swedes, cabbage, etc., should be given frequently when in season. Young children should be given them shredded or grated, and the amount increased gradually. Serve potatoes and vegetables, cooked or raw, at least once daily and preferably oftener. Vegetables should be as varied as possible and should include pulses, fresh, dried or canned, which

are rich in protein. Potatoes should be cooked in their skins.

The allowance of vegetables should be about one tablespoonful for children under two years and about two for children of five years of green or root vegetables. They should be mashed at first, but the children should be gradually accustomed to eat unmashed vegetables. Small helpings of finely shredded or grated raw vegetables should also be served frequently. In cooking vegetables attention should be paid to the rules for preserving the maximum nutrient value, as set out in Appendix III.

Fresh fruit should be served when obtainable either raw or cooked. Dried fruits are valuable for cooked dishes and are useful as a preventive

of constipation; they are also rich in vitamin B and salts.

Liver, kidney and fish are rich in constructive and protective nutrients and should be served when obtainable. For children under 2 years the allowance at one meal should be about 1 oz. of meat, 1½ oz. fish, or ½ oz. liver or kidney (raw weights), and it should be minced. As children grow older the allowances should be increased to about

1½ oz. meat, 2 oz. fish, or 1 oz. liver or kidney (raw weights), or more if the children like them, and mincing should be gradually stopped. Tripe is also a useful offal, especially for younger children.

#### DRIED MILK

It is now necessary to register for supplies of liquid milk. There may not be enough for all the purposes for which it was used in peace-time but dried skimmed milk is an excellent food and contains a very high concentration of valuable nutrients which are practically identical with those of liquid skimmed milk, the nutritive value of which can best be summed up in the words of the Advisory Committee on Nutrition: (First Report 1937, para. 65, H.M.S.O.)

"... skimmed milk stands next to whole milk in the order of nutritive value of foods and differs from the latter only in so far as it contains very little of the fat with its attendant vitamins A and D. Except for these three nutrients, skimmed milk contains all those present in whole milk, or, in other words, all the remaining materials required for the nutrition of the body, viz., the protein, carbohydrate, vitamins B, C and E, and inorganic elements. As with whole milk, however, a statement of the chemical constituents of skimmed milk gives an imperfect idea of its nutritive properties because it leaves unmentioned nutritionally important physio-chemical and biological characteristics."

Dried skimmed milk can be used instead of liquid milk for all forms of cookery; in hot beverages such as coffee, cocoa, tea; in soups, sauces, salad dressings, puddings, pies and cakes. It should be stored in a dry cool place in a closed container. In these conditions it should keep for some weeks. It can be reconstituted into liquid milk and mixes freely with flour. It should be mixed or reconstituted as required, and after reconstitution it behaves like fresh liquid milk and should be treated with the same care.

To prepare liquid skimmed milk: To 3 tablespoons (2 ozs.) of dried milk add two tablespoons of water and beat very hard with a wooden spoon or whisk until smooth. Add one pint of water gradually and stir or whisk well.

Alternatively, measure the cold water into a vessel. Sprinkle a little powder on the surface little by little and beat vigorously with a fork or whisk.

For special recipes see "Food from Overseas," H.M.S.O. price 3d.

#### GENERAL NOTES FOR DAILY MEALS.

Some suggestions for daily meals and the times when they might be served are given below. It is important to have a good interval between each meal. If meals are crowded digestion may be upset.

Orange or tomato juice, swede juice, blackcurrant juice or rose hip syrup to supply vitamin C, and cod liver oil or vitaminised oil, for vitamins A and D, may be given after any meal. It may be found desirable to give a drink of milk, or cocoa made with milk, about 10.30 a.m.

#### Breakfast--8 to 8.30 a.m.

Daily,  $\frac{1}{3}$  pint milk, including that used for porridge.

Toast or rusk with butter or margarine, or with yeast extract occasionally.

Porridge, egg, fried bread, or bacon or stewed fruit.

#### Dinner-12 to I p.m.

I-I1 tablespoonfuls per child of any of the following:

Meat, mince, stew, liver or brains, fish, sweetbreads, or cheese (grated), with vegetables or 3 tablespoonfuls vegetable broth cooked with milk.

I-2 heaped tablespoonfuls per child of boiled, mashed or jacket potatoes.

I-2 heaped tablespoonfuls per child of green vegetables, carrots, cauliflower, sprouts, peas, beans, spinach, or  $\frac{1}{2}$  to I tablespoonful of raw salad vegetables finely grated or chopped.

2-3 tablespoonfuls per child of milk pudding or milk blancmange, or steamed pudding or baked wheatmeal bread puddings with custard (1-2 heaped tablespoonfuls), for children of 15 months or more.

Rusk or baked bread. Water to drink.

#### Tea-4.30 to 6 p.m.

1 pint milk.

Wheatmeal bread or rusks, unsweetened biscuits or oatcakes, butter or margarine sandwiches with small quantities of finely shredded raw salads or vegetables, also seedless jam or grated carrot sprinkled with cocoa, small piece of plain cake (if available).

#### Suggestions for sandwich fillings.

Finely shredded lettuce, sprouts, cabbage, carrot, swede or beetroot, sliced tomato, grated carrot and cheese, and cocoa, jam, syrup, or dates, if available.

## APPENDIX I. MENUS.

Although children do not need a great variety of food, 22 specimen individual daily menus are shown in Appendix I to give guidance and help. Recipes for 48 dishes are shown in Appendix II.

Breakfast.	Dinner.	Tea.
1. ½ pt. Milk Fried Bacon and Fried Bread (1 oz. Bacon) Bread: Margarine	Baked Mutton (1½ oz.) Green Vegetable Potatoes Milk Pudding or Chocolate Junket	<sup>1</sup> / <sub>3</sub> pt. Milk (to complete the daily pint) Salad Sandwiches Plain Cake
2. ½ pt. Milk Porridge Toast: Margarine	Stewed Fish Potatoes Mixed Root Vegetables Steamed Wheatmeal Bread Pudding	½ pt. Milk Carrot and Cocoa Sandwiches
3. ½ pt. Milk Cereal Toast: Margarine Yeast Extract Cress	Minced Meat and Rice Rusk Potatoes Green Vegetable War and Peace Pud- ding	† pt. Milk Cheese and Lettuce in Wheatmeal Scones

Breakfast.	Dinner.	Tea.
4. ½ pt. Milk Boiled Egg Rusks: Margarine	Vegetable and Cheese (½ oz.) Hot-pot Potatoes Chocolate Queen of Puddings	† pt. Milk Salad and Date or Sultana Sandwiches
5. ½ pt. Milk Oatcakes with Tomato or grated Carrot Bread: Margarine	Minced Meat and Vegetable Roly-poly Potatoes Root Vegetables Cocoa Cap Custard	† pt. Milk Salad Sandwiches Scones and Seedless Jam
6. ½ pt. Cocoa Fried Bacon (1 oz.) and Fried Potatoes Rusks: Margarine	Salad: Cheese (½ oz. grated) Wheatmeal Bread: Margarine Raw Sultanas ½ pt. Milk	½ pt. Milk Mock Lemon Curd Sandwiches Oatmeal Biscuits
7. ½ pt. Milk Porridge Toast: Margarine	Fish (steamed or baked) Mashed Turnips Potatoes Castle Pudding	† pt. Milk Salad Sandwiches Oatcakes and Seed- less Jam
8. ½ pt. Cocoa Scrambled Egg (½) Toast: Margarine	Boiled Bacon (2 oz.) Salad Baked Potatoes Fruit Mould	† pt. Milk Wheatmeal Bread: Margarine Plain Cake
9. ½ pt. Cocoa Porridge (3 oz.) Toast: Margarine Yeast Extract Cress	Mutton and Lentil Hot-pot Potatoes Carrots Milk Pudding or Trifle	† pt. Milk Wheatmeal Scones Seedless Jam and Margarine
10. ½ pt. Milk Boiled Egg Toast: Margarine	Vegetable Soup made with Milk Seedless Jam Roly- poly	† pt. Milk Cheese and Salad Sandwiches
11. ½ pt. Milk Bacon (1 oz.), Fried Bread Bread: Margarine	Shepherd's Pie Root Vegetable Semolina Whip	† pt. Milk Salad and Marmite Sandwiches Bread: Margarine
12. ½ pt. Milk Porridge Rusks: Margarine	Fish Pie Green Vegetables Brown Betty	½ pt. Milk Cocoa and Dried Milk Sandwiches

Breakfast.	Dinner.	Tea.		
13. ½ pt. Milk Pounded Sardines on Toast Bread: Margarine	Stewed Rabbit Potatoes Green Vegetable Sweet Surprise Pudding	½ pt. Milk Salad Sandwiches Scones: Seedless Jam		
14. ½ pt. Milk Porridge Toast: Margarine Cress	Fish Cakes Baked Potatoes Baked Carrots Sweet Twirls	<sup>1</sup> / <sub>3</sub> pt. Milk Salad Sandwiches Rock Cakes		
15. ½ pt. Cocoa Rusks: Margarine Porridge	Sea Pie Potatoes Green Vegetable Fruit Charlotte	<sup>1</sup> / <sub>3</sub> pt. Milk Cheese and Salad Sandwiches Plain Cake		
16. ½ pt. Milk Scrambled Egg (½ egg) Toast: Margarine	Stoved Potatoes and Bacon Green Vegetable Chocolate Pudding	† pt. Milk Salad and Yeast Extract Sandwiches Biscuits		
17. ½ pt. Cocoa Porridge Rusks: Margarine	Irish Stew Green Vegetables Bread and Butter Pudding	† pt. Milk Salad Sandwiches Scones: Seedless Jam		
18. ½ pt. Milk Fish and Potato Cakes (grated carrot and parsley if fish is scarce or dear) Bread: Margarine	Bacon, Rice, and Tomato Pie (r oz. bacon) Green Vegetable Milk Pudding	½ pt. Milk Salad and Yeast Extract Sandwiches Cake		
19. ½ pt. Cocoa Porridge or Cereal Rusks: Margarine	Braised Brisket Potatoes Green Vegetable Baked Custard	½ pt. Milk Salad Sandwiches Potato Scones		
20. ½ pt. Milk Fried Bread Bread: Margarine	Scotch Broth Baked Potatoes Syrup Sponge Pudding	† pt. Milk Cheese and Salad Sandwiches Oatmeal Biscuits		
21. ½ pt. Milk Potato and Cheese Cakes Bread: Margarine	Mince and Oatmeal Pudding Potatoes Green Vegetable Chocolate Blanc- mange	† pt. Milk Salad Sandwiches Bread: Margarine Seedless Jam		
22. ½ pt. Milk Scrambled Egg (½ egg) Bread: Margarine	Potato, Lentil and Bacon Pie (1 oz. Bacon) Green Vegetable Jam Roly-poly			

#### SPECIMEN DIET SERVED AT A DAY NURSERY

8.30 a.m. Porridge or groats made with milk: sugar. Crusts dipped in bacon fat; or Wheatmeal bread dipped in coddled egg; or Wheatmeal bread and dripping.

Milk to drink.

12.30 p.m. Potatoes: Sieved vegetables and egg; or
Minced Liver or Rabbit or Beef or Fish; and
Milk pudding—ground rice, sago, whole rice, blancmange.
Raw fruit if obtainable, slice of orange or apple, or raw
carrot.

4.30 p.m. Milk or cocoa.

Wheatmeal bread, butter, seedless jam or syrup. Sponge cake.

Salad or grated vegetable sandwiches.

#### APPENDIX II—RECIPES.

#### Recipes for Meals for 50 children of 2-5 years.

General Notes on Quantities.

 $\frac{1}{4}$  oz. a head =  $\frac{3}{4}$  lb. for 48 children.  $\frac{1}{2}$  ,, ,, ,, =  $I_{\frac{1}{2}}$  ,, ,, 48 ,, I ,, ,, ,, = 3 ,, ,, 48 ,,  $I_{\frac{1}{2}}$  ,, ,, ,, =  $4^{\frac{1}{2}}$  ,, ,, 48 ,, 2 ,, ,, ,, = 6 ,, ,, 48 ,, 3 ,, ,, ,, = 9 ,, ,, 48 ,, 4 ,, ,, ,, = 12 ,, ,, 48 ,,

## Quantities of Basic Ingredients for 50 Children for Separate Meals, Raw Weight.

Potatoes ... 9-10 lbs. (3 oz. per head).

Green Vegetables ... 9 lbs. Carrots ... 9 lbs. Meat

Meat ...  $4\frac{1}{2}$ -5 lbs. ( $1\frac{1}{2}$  oz. per head).

Fish—Cod or Hake 6–7 lbs.

Oatmeal ... 3 lbs. (1 oz. per head).

Bread, Breakfast ... 3-4 2-lb. loaves Daily Total 16-18 lbs.

## RECIPES FOR NURSERY SCHOOL MEALS FOR CHILDREN OF TWO-FIVE YEARS.

QUANTITIES FOR 50 CHILDREN.

#### SOUPS.

#### 1. Scotch Broth.

4 lbs. Brisket Flank of Beef, Brisket or Scrag End of Neck of Mutton.

8 quarts of Water.

3 tablesp. Parsley (chopped).

9 oz. Barley.

5 lbs. root Vegetables (chopped).

I Cabbage (shredded).

Salt.

Method: Put wiped meat, cut into rough pieces, in covered pan with water, salt and washed barley. Bring to boil and skim. Add prepared root vegetables. Simmer very slowly for 3-3½ hours. Add cabbage 30 minutes before dishing. Add chopped parsley just before serving.

#### 2. Cottage Soup.

4 lbs. Potatoes.

4 lbs. Carrots.
2 lbs. Onions—if available.

12 pints pot Liquor.

½ lb. Margarine or Cooking Fat.

½ lb. Flour. 4 pints Milk.

I lb. Cheese (grated).

Parsley (chopped).

Method: Prepare vegetables and cut into rough pieces. Fry lightly in margarine or cooking fat. Add enough water to cover and cook until tender. Beat mixture until smooth. Add remainder of liquid, reserving enough milk to blend flour to thin paste. Add blended flour to soup and boil for 10 minutes. Place grated cheese in serving bowls. Pour on soup and sprinkle with chopped parsley, chopped watercress or chopped lettuce.

#### MEAT DISHES.

#### 3. Boiled Bacon.

6-7 lbs. Bacon.

Method: Soak joint in cold water for several hours. Scrape and put in enough tepid water just to cover. Bring to boiling point and boil for 5 minutes. Simmer gently till tender—approximately 3 hours. Allow to cool in the liquor if required cold. Remove skin. Use liquor for gravies.

#### 4. Braised Steak.

5 lbs. Steak

7 lbs. mixed Vegetables

10 lbs. Potatoes—some of this quantity may need to be cooked separately.

3 pints cold Water.

Method: Prepare root vegetables and cut into thick pieces. Place in baking tins, add water and seasoning. Place wiped meat on vegetables and cover. Cook  $2-2\frac{1}{2}$  hours in moderate oven, turning the meat once during this time. Add potatoes when meat has been cooking for one hour. Thicken gravy if desired.

This dish may be cooked in the oven or on top of the stove in

casserole or saucepan.

#### 5. Hot-Pot.

4-6 lbs. Breast of Mutton. 9 lbs. Potatoes.

3½ lbs. Lentils.

I lb. Oatmeal.

Method: Wash and cut mutton into rough pieces. Cover (barely) with cold water and stew gently for  $\frac{1}{2}$  hour. Place meat in baking tins with a little of the stock. Cover with oatmeal and soaked lentils. Scrub potatoes and cut into a few rough pieces (do not peel). Arrange potatoes on top of all ingredients and season. Bake in covered tins for 1-11 hours, removing cover 15 minutes before serving to brown potatoes. Serve with thickened gravy made from liquor in which meat has been stewed.

#### 6. Irish Stew.

7–8 lbs. Neck of Mutton.

6 pints Water.

10 lbs. Potatoes.

Parsley (chopped).

4 lbs. Onions—if available.

Seasoning.

Method: Wash and cut meat into rough pieces. Peel and slice onions. Place in covered pan and stew meat and onions gently in water for two hours, adding salt. Add scrubbed and sliced potatoes and cook for one more hour. Add chopped parsley just before serving.

#### 7. Mince and Rice.

5 lbs. raw minced Meat.

3 pints Water.

6 oz. Dripping or Margarine. 3 lb. Onion—if available.

6 teaspoonfuls Salt.
2 lbs. Rice.

6 oz. Flour.

Method: Fry onion gently in melted fat. Add flour and stir for a few minutes over low light. Pour in water and bring to boil. Stir in minced meat and add salt. Cook very gently for I hour in covered pan. Wash rice and boil rapidly until soft. Strain and arrange as border round edge of dish. Pour mince into centre of border, adding chopped parsley. Serve with rusks or toast.

#### 8. Mince and Oatmeal Pudding.

3 lbs. Flour.

3 lb. Suet or hard Fat.

1½ lbs. Medium Oatmeal (soaked overnight).

<sup>3</sup>/<sub>4</sub> oz. Baking Powder (6 teaspoonfuls).

 $4\frac{1}{2}$  lbs. raw minced Meat. 9 lbs. Carrots (grated).

Seasoning. Water.

*Method*: Mix all ingredients together, adding enough water to make a soft mixture. Steam for  $1\frac{1}{2}$ —2 hours in greased basins. Serve with a green vegetable.

9. Mince Roly-poly.

Mixture.

Pastry.

3½ lbs. raw minced Meat. I lb. Onions—if available.

3 lbs. Flour. 3 lb. Suet.

i lb. root Vegetables (grated).

6 teasp. Baking Powder.

2 Tablesp. Parsley (chopped). Salt water.

Salt.

Brown Gravy.

Method: Mix meat, chopped onion, grated vegetables and parsley and moisten with gravy. Make suet pastry, roll out and spread with seasoned mince mixture. Roll up and seal edges. Steam 2-3 hours. Serve with brown gravy.

#### 10. Baked Mutton.

7-8 lbs. Breast of Mutton (or other suitable cut).

I lb. Onions.pints Water.

ro lbs. Potatoes.

Salt.

Method: Scrub potatoes and cut in thick slices. Peel and slice onions. Put good layer of potatoes in baking tin, then onions, then remainder of potatoes. Season each layer. Pour on water. Roll up breasts of mutton and lay on top of potatoes. Cover with greased paper and bake for  $1\frac{1}{2}$  hours (moderate oven). Remove paper and brown for 20 minutes before serving.

#### 11. Sea Pie.

Stew.

Pastry.

 $4\frac{1}{2}$  lbs. Stewing Steak.

3 lbs. Flour. 3 lb. Suet.

i lbs. Onions—if available. 9 lbs. Carrots and Turnips.

6 teasp. Baking Powder.

 $\frac{1}{2}$  lb. Flour.

Water to mix.

8 pints Water. Seasoning.

Method: Prepare ingredients for stew and put into covered pan and cook slowly for 3 hours. Add gravy salt to colour and chopped parsley. Make suet pastry and steam in basins  $2\frac{1}{2}$ —3 hours. Cut puddings into slices and arrange on top of stew.

#### 12. Shepherd's Pie.

4½ lbs. raw minced Meat.

Salt.

9 lbs. Potatoes (freshly cooked and mashed).

Parsley (chopped).

4 oz. Margarine or Cooking Fat.

Gravy.

Method: Cook meat slowly in gravy for I hour—see recipe for "Mince and Rice." Line dish with seasoned mashed potatoes. Put in mince and cover with mashed potatoes. Dot with margarine or cooking fat, Bake until brown—approximately 20 minutes.

#### 13. Stoved Potatoes.

4½ lbs. Bacon—rashers.

8 oz. Dripping or Margarine.

9 lbs. Potatoes.

3 pints hot Milk and pot

r lb. Onions—if available.

Liquor. 4 tablesp. Parsley (chopped).

Salt.

Method: Prepare potatoes and cut into rough pieces. Melt fat, add the peeled sliced onion and rashers of bacon cut into suitably

sized pieces and fry gently. Add liquor and potatoes. Simmer gently in covered pan until potatoes are cooked-approximately 30-45 minutes. Turn on to serving dish and sprinkle with finely

chopped parsley.

#### 14. Bacon, Rice and Tomatoes.

2 lbs. Rice;  $\frac{3}{4}$  lb. Margarine. 4 lbs. Tomatoes (fresh, bottled or canned).

4 lbs. boiled Bacon. Parsley (chopped).

Method: Wash rice and cook until soft in boiling salted water approximately 20 minutes. Strain, mix with tomatoes and margarine and re-heat. Mix with boiled bacon cut into small pieces. Add parsley and serve.

#### VEGETARIAN DISHES.

#### 15. Vegetable and Cheese Hot-pot.

season.

₹ lb. Dried Peas or Lentils.

2 quarts Milk.

4½ lbs. mixed Vegetables in 4 oz. Flour.

4 oz. Fat.

41 lbs. Potatoes.

12 oz. Cheese (grated).

Method: Soak peas or lentils overnight and cook until tender. Prepare vegetables cutting root vegetables into convenient sized pieces. Steam about 3 hour. Make sauce with fat, flour and milk. Mix sauce and vegetables. Add cheese and parsley just before serving.

#### 16. Potato and Lentil Pie.

4 lbs. Lentils or Dried Peas. 10 lbs. Potatoes.

3 lb. Cheese (grated) or 1½ lbs.

Bacon.

I quart Milk.

Method: Soak lentils and cook until tender. Boil and mash potatoes. Mash lentils with enough milk to soften. Add bacon (cut into small pieces) or grated cheese. Put in greased dish or tin. Cover with potatoes and brown top in a quick oven.

#### FISH AND EGG DISHES.

#### 17. Scrambled Eggs.

25 Eggs. ½ lb. Margarine.

ı quart Milk.

Salt.

Method: Melt margarine in strong pan or in a double saucepan. Beat eggs and add milk. Remove pan from heat and stir egg mixture into melted fat. Cook gently over low light until just set—it is important that this mixture should not be overcooked and toughened. Serve on toast.

#### 18. Creamed Eggs.

25 or 50 Eggs—according to ration.

White Sauce—(amount to serve with 50 eggs).

5 quarts Milk.

Salt.

10 oz. Flour.

4 tablesp. Parsley (chopped).

10 oz. Margarine.

Method: Boil eggs hard and shell and slice them. Melt fat and stir in flour. Add milk gradually. Bring to boil and cook for 10–15 minutes. Add eggs and parsley. Serve with baked bread.

#### 19. Fish Cakes.

6 lbs. White Fish.

 $\frac{1}{2}$  lb. Margarine.

9 lbs. Potatoes (freshly cooked

3 pint Milk.

and mashed).

4 tablesp. Parsley (chopped).

Method: Boil fish, remove skin and bone and flake with fork. Mix hot mashed potatoes, fish, milk, margarine and parsley. Put into greased tin, mark in squares, bake until brown—20 minutes.

#### 20. Fish Pie.

6 lbs. Fish.

I-2 pints White Sauce.

9 lbs. Potatoes.

4 tablesp. Parsley (chopped).

Seasoning.

4 ozs. Margarine or Dripping.

Method: Steam fish—remove skin and bones. Steam potatoes and mash. Mix the fish with sufficient sauce to moisten and add parsley. Turn into deep tins or dishes. Cover with mashed potato. Spread evenly with a fork and dot with fat. Reheat in a moderate oven for 30–40 minutes.

#### 21. Stewed Fish.

6 lbs. Cod or Hake.

4 oz. Margarine or Dripping.

9 lbs. Potatoes.

I to 1½ pints White Sauce.

Salt.

4 tablesp. Chopped Parsley.

Method: Prepare and cook potatoes: mash and season whilst hot. Prepare fish and stew or bake: remove skin and bones. Line tins or dishes with mashed potatoes. Mix the prepared fish with the sauce, seasoning and parsley and spread over the potatoes. Cover with mashed potatoes, dot with fat. Bake in a moderate oven until hot through and brown—about 20 minutes.

#### 22. Sardines on Toast.

50 Sardines.

Toast.

1 lb. Margarine.

Method: Pound sardines well to crush bones thoroughly. Melt margarine add sardines and heat through. Pile on toast.

#### VEGETABLE DISHES.

23. Potatoes.

Scrub thoroughly. Boil, steam or bake in skins.

#### 24. Green Vegetables.

See Appendix III.

#### 25. Root Vegetables.

Method: Scrub and trim if necessary, remove skins only from swedes and turnips. Cut into large pieces or leave whole. Cook as for green vegetables.

#### Potato Pancake. **26.**

9 lbs. Potatoes.

4 tablesp. Parsley (chopped). Salt.

I quart Milk.

3 lbs. Carrots (grated).

Method: Mash potatoes and mix with carrot, parsley, salt and milk. Put in greased tin and mark in squares. Bake until brown—20 minutes.

#### PUDDINGS.

#### 27. Castle Pudding.

4 lbs. Flour. I lb. Sugar.

4 Eggs (dried). Milk to mix.

1½ lbs. Margarine.

2 lbs. Jam or Syrup or sufficient Custard Powder for

2 tablesp. Baking Powder.

Method: Rub fat into flour and add sugar and baking powder. Add soaked and beaten eggs and enough milk to make a mixture of stiff dropping consistency. Bake in moderate oven for 1-2 hours. Serve with jam, syrup or custard sauce.

#### 28. Chocolate Blancmange.

20 pints Milk.  $\frac{1}{2}$  lb. Sugar.

13 lbs. Cornflour. ½ oz. Cocoa.

Method: Blend cornfleur and cocoa to smooth paste with milk. Boil remainder of milk with sugar. Stir boiling liquid on to blended cornflour and cocoa. Return to pan and cook for 5 minutes. Pour into wet moulds and turn out when set.

#### 29. Brown Betty.

5 lbs. Stale Wheatmeal Bread.

12 Medium Apples.

1 lb. Sugar or ½ lb. Sugar and 1 lb. chopped Dates.

6 Medium Carrots.

4 oz. Margarine or Dripping.

3 teasp. Spice.

I to 1½ pints Water.

Method: Grease pie dishes or baking tins. Put a layer of crumbed bread in the bottom. Grate the apples and carrots together and fill up dishes with alternate layers of fruit, breadcrumbs and sugar, with a sprinkling of spice between each and breadcrumbs on the top. Dot with small pieces of fat, pour over the water. Bake in a moderate oven for about 2 hour.

#### 30. Sweet Twirls.

Pastry.

1 lbs. Wheatmeal Flour.

 $1\frac{1}{2}$  lbs. White Flour.

3 lb. Cooking Fat.

6 teasp. Baking Powder.

Salt.

Water to mix.

Filling.

6 Medium Carrots.

12 tablesp. Dried Milk.

6 tablesp. Dried Fruit or other preserves.

Method: Prepare the pastry. Spread with the filling, roll up like a roly-poly, cut the roll into slices. Arrange the slices on a well greased baking tin and bake in a quick oven for 20 to 30 minutes.

#### 31. Foundation Pudding.

Foundation Recipe.

3 lbs. Flour or 2 lbs. Flour and 1 lb. raw Potato (grated) or fine Oatmeal.

3 lb. Suet or Margarine.

3 lb. Sugar.

3 Carrots (grated) (1 lb.).

4 teasp. Bicarbonate of Soda.

Pinch of Salt. Milk to mix.

Variation to Foundation Mixture.

1.  $\frac{1}{4}$  lb. Cocoa and extra Sugar.

2. \(\frac{3}{4}\) lb. Dried Fruit—Raisins, Sultanas, chopped Dates.

3.  $\frac{3}{4}$ -1 lb. Jam, Syrup, Marmalade.

Method: Mix dry ingredients thoroughly. Add finely chopped suet or rub in margarine. Add grated carrots and cocoa or dried fruit—if used. Mix to a fairly stiff mixture with milk or milk and water. Turn into greased basins and steam 2–3 hours for ½ lb. mixture.

NOTE.

1. When using Jam, Syrup or Marmalade, divide into equal portions and place in the bottom of each basin before adding the mixture.

2. Alternative Method: Bake in greased Yorkshire tins  $\frac{3}{4}$ -1 hour.

#### 32. Milk Pudding.

16 pints Milk.
11 lbs. Cereal.

I lb. Sugar.

Method: Wash cereal and add sugar and milk. Bake in moderate oven in pie dishes or hot-pots 2-3 hours or cook in double pan.

#### 33. Chocolate Queen of Puddings.

5 lbs. Bread—stale pieces. 10 pints Milk.

12 Eggs or Dried Eggs.

 $1\frac{1}{4}$  lbs. Sugar. 4 oz. Cocoa.

Method: Blend cocoa in a little cold milk. Add to half the milk and heat it with the sugar. Pour over sliced bread—soak for one hour. Beat eggs (soak if dried) and add remainder of milk. Pour on to soaked bread. Put into greased dishes and bake in moderate oven until set—I hour.

#### 34. Cocoa Cap Custard.

16 pints Milk.

1 lb. Custard Powder.

 $1\frac{1}{2}$  lbs. Sugar.  $\frac{1}{4}$  lb. Cocoa.

Method: Make custard as for blancmange, using half the sugar. Sprinkle custard with remaining sugar and cocoa mixed.

#### 35. Fruit Charlotte.

5 lbs. Bread—stale pieces. 5 lbs. Fruit or Fruit Pulp. 1½ lbs. Sugar.

3 lb. Margarine.

Method: Stew fruit with sugar. Line greased dishes with bread (sliced). Pour on fruit. Cover with bread. Dot with margarine, Bake in moderate oven until crisp—45 minutes.

#### 36. Semolina Whip.

I lb. Semolina.

6 pints Milk. 2½ lbs. Sugar. 6 lbs. Rhubarb or Fruit in season.

3 pints Water.

Method: Stew rhubarb with water and half the sugar. Boil milk and half sugar and sprinkle in semolina—cook until semolina is clear. When cool add stewed rhubarb and whisk together until frothy. Vegetable colouring may be added if liked.

#### CAKES AND BISCUITS.

#### 37. Plain Cake.

3 lbs. Flour.

3 lb. Margarine.

I lb. Sugar.

6 teasp. Baking Powder.

3 Eggs.

Milk to mix.

Chopped Dates or Sultanas or Raisins or Chocolate Pow-

der to flavour.

Method: Rub fat into flour and add dry ingredients. Beat eggs and mix with milk. Add to dry ingredients, using enough milk to make a dripping consistency. Bake in moderate oven—1½—2 hours.

#### 38. Oatmeal Biscuits.

2 lbs. Oatmeal.

 $1\frac{1}{4}$  lbs. Wheatmeal Flour.

3 lb. Margarine.

Ilb. Sugar.

I tablesp. Baking Powder,

4 Eggs (optional).

ı gill Milk.

Pinch of Salt.

Method: Mix oatmeal, wheatmeal flour, salt and sugar together. Rub in margarine. Mix to stiff dough with egg and milk. Roll out very thinly on floured board. Cut into required shapes. Bake on greased tin in fairly quick oven for 15-20 minutes.

#### 39. Oatmeal or Wheatmeal Scones.

3 lbs. Oatmeal or 4 lbs. National Wheatmeal Flour.

1½ tablesp. Baking Powder.

6-8 oz. Margarine.

2 teasp. Salt.

About 2 pints Milk and Water.

Method: Mix oatmeal, salt, flour and baking powder. Rub in margarine. Mix with milk. Roll to  $\frac{1}{2}$  in thickness on floured board. Bake in hot oven—20–30 minutes.

#### 40. Crunch.

6 tablesp. Margarine.

1½ teasp. Salt.

6 tablesp. Syrup.

12 cups Rolled Oats.

Method: Beat margarine until soft: add syrup and work together. Mix rolled oats and salt and work gradually into margarine. Spread on shallow tin and bake in moderate oven until brown—20 minutes approximately. Mark in squares and cut through when cold.

#### MISCELLANEOUS.

#### 41. Cocoa.

10 pints Milk. 6 pints Water.

⅓ lb. Sugar.

12 tablesp. Cocoa.

Method: Blend cocoa with a little cold milk. Boil remainder of milk with water and sugar. Add blended cocoa and re-boil. Whisk and serve.

#### 42. Porridge.

3 lbs. coarse or medium Oatmeal. 24 pints Water.

2 tablesp. Salt.

Method: Mix oatmeal, salt and a little water to a smooth paste. Bring water to boil and stir in paste. Cook for  $1\frac{1}{2}-2$  hours, stirring frequently. Use a double boiler if possible.

#### 43. Rusks.

Cut slices of Bread  $\frac{1}{2}$  in. thick. Bake in cool oven until pale brown and crisp. This should be done after oven has been used for baking, etc. For variety, dip the rusks before baking into one of the following:—Cocoa, yeast extract, or jam or honey dissolved in milk or water.

#### 44. Chocolate Spread.

 $\frac{1}{2}$  lb. Cocoa.  $\frac{1}{2}$  lb. Sugar.

1 lb. Margarine.

Milk.

Method: Mix cocoa and sugar to thick cream with margarine, thinning down with a little milk.

#### 45. Mock Lemon Curd.

4 oz. Custard Powder.

8 oz. Sugar.

I quart Water.

I tablesp. Margarine.

2 tablesp. Lemonade Crystals.

I teasp. Bicarbonate of Soda.

Method: Mix custard powder and lemonade crystals to a thin paste with cold water. Boil remainder of water and sugar and pour on to blended custard powder. Return to pan and bring to boil. Beat in the margarine and bicarbonate of soda. Cool and put into jars and cover.

46. Lentil Spread.

I pint Lentils.

½ lb. Margarine.

I large tablespoonful Yeast
Extract.

4 breakfastcupfuls stale Breadcrumbs.

Method: Wash and soak lentils. Put in pan with enough water to cover. Bring slowly to boiling point and cook until tender. Add remaining ingredients and bring to boiling point. Cool and pot.

#### 47. Cream Cheese.

Pour sour milk into muslin suspended over basin. Tie up muslin and allow to drip. Remove curd from muslin when fully hard (after about a day, depending on weather). Add a little pepper and salt and make into desired shape.

48. Salads.

Using lettuce or raw cabbage as a foundation, add:—watercress, tomato, cucumber, shredded spinach, shredded brussels sprouts, grated raw carrot or sliced cooked carrot, boiled beetroot, radishes, spring onions, mustard and cress, chopped parsley, mint, endive, chicory, chives, dandelion leaves, swedes or turnips, raw or cooked, and potatoes, and in fact any edible vegetables, green or root. Dress with oil and vinegar flavoured with salt, pepper and sugar, or with a specially made mayonnaise or salad dressing.

#### APPENDIX III.

#### MEDICAL RESEARCH COUNCIL. Accessory Food Factors Committee.

Preservation of the Vitamins and Salts in the Processes of preparing Green Vegetables for the Table.

Vitamins are lost or destroyed in the preparation and cooking of greenstuffs by many of the methods now in common use. As it is of special importance at the present time to secure the maximum nutritive value from all the foods available, it is desirable to employ methods of preparation and cooking of foodstuffs which conserve their nutrients to the utmost.

The following generalisations summarise our knowledge of the behaviour in greenstuffs of the vitamins most likely to be affected in the course of preparing green vegetables for the table. Some simple rules based on these generalisations are given and cooking methods for greenstuffs are recommended.

Fat-soluble vitamin A is unlikely to suffer damage; water-soluble vitamins B and C are the most likely to be lost on preparation and cooking. This is so for the following reasons:—

(1) Because they are water-soluble, they are dissolved out by soaking or cooking water; they also run out in the watery juice.

(2) Raw vegetables contain enzymes which are active in destroying the vitamins, particularly if the raw foodstuff is left lying about after being bruised or cut up. These substances which destroy the vitamins become more active as the temperature rises during cooking up to a point at which they themselves are destroyed. This point of destruction is only a few degrees below boiling temperature.

(3) The water-soluble vitamins are themselves also destroyed by heat to an extent which depends on the length and severity

of the heating.

(4) The water-soluble vitamins are found to diminish in amount

in foods left standing after they are cooked.

(5) Salt or sugar added to vegetables before cooking lessens the amount of destruction under conditions described in (3) and (4).

(6) Vitamins B and C are more stable in the presence of acid; which is sometimes added as vinegar. The addition of alkali (carbonate or bicarbonate of soda) will, on the other hand, hasten the destruction of the vitamins.

PRACTICAL RULES FOR THE CONSERVATION OF VITAMINS IN THE PREPARATION AND COOKING OF GREEN VEGETABLES.

1. Obtain as fresh as possible.

2. Keep in a cool damp place in order to reduce wilting.

3. Take precautions to avoid damage due to crushing or bruising during transport or handling.

4. If vegetables are soaked use salt water (2 teasp. to 1 pint).

5. If vegetables are to be shredded or finely chopped for salads, prepare immediately before serving.

6. Use the smallest possible amount of water for cooking.

7. Have water boiling before adding vegetables. 8. Add salt to water before adding vegetables.

9. Add vegetables gradually or in small amounts at a time, in order to prevent water going off the boil.

10. Cook vegetables no longer than is necessary to render them tender.

11. Plan cooking arrangements so that vegetables are dished up and served immediately after they are cooked. On no account allow to stand for a long time on a hot plate.

of soups and gravies; alternatively, if successive batches are being cooked on the same day, use the same water again adding more if necessary.

### METHODS RECOMMENDED WHICH RESULT IN THE LEAST LOSS OF VITAMIN C.

#### Method I.

Boil for the shortest time in a small quantity of boiling salted water. Use water left over for boiling other batches and for addition to soups and gravies.

#### Method II.

Slice the fresh vegetables into ribbons about 2 to 3 inches long by  $\frac{3}{4}$  inch wide and cook briskly for  $\frac{1}{2}$  to 1 minute in a small quantity of hot oil or dripping to which salt has been added (2 teasp. oil and  $\frac{1}{2}$  teasp. salt to an average sized cabbage). Add a small quantity of boiling water ( $\frac{1}{2}$  to 1 cupful for above) and stew for about 10 minutes in a closed container. Keep the lid on so that no steam escapes. When the vegetables are cooked only a very little water should be left.

This method is used throughout the Far East and India. In Europe the nearest approach to it is the French method of "casserole" or "conservative" cooking by which the vegetables are placed in a closed fireproof dish with a little water and fat and cooked in the oven or over a low flame for 15 to 25 minutes.

In hay-box cookery vitamin C is destroyed so that this method should not generally be used for cooking green vegetables which are particularly valuable in the diet for their vitamin C content.

Steaming of vegetables even with the best equipment is not as satisfactory as the methods described above.

#### Conservation of Salts.

If the precautions described above are carefully taken, it can be relied on that effective conservation of the valuable salts present in green wegetables will also be secured.

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